**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
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| Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems | ) | ET Docket No. 00-258 |
| Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use By the Mobile-Satellite Service | ) | ET Docket No. 95-18 |
| The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band | ) | IB Docket No. 99-81 |
| Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service | ) | RM-9498 |
| Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service | ) | RM-10024 |

COMMENTS OF NORTEL NETWORKS INC.

Nortel Networks Inc. ("Nortel Networks") hereby respectfully submits its comments in response to the Federal Communication Commission's Further Notice of Proposed Rule Making ("FNPRM") in the above-captioned docket.[1] In its FNPRM, the

[1] *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, ET Docket No. 00-258,

Commission seeks comment on the reallocation of certain frequencies for the deployment of advanced wireless services in addition to the bands addressed initially for 3G services. Specifically, the Commission is reviewing for possible reallocation the bands 1910-1930 MHz, 2150-2160 MHz, 2165-2200 MHz and 2390-2400 MHz.

Nortel Networks remains very interested in the advanced wireless services that are the subject of this proceeding. Nortel Networks has been actively involved in the various 3G proceedings in the United States and elsewhere, including the technical studies in connection with WRC-2000. The specific frequencies proposed in the FNPRM, as well as the band pairings options addressed therein, are discussed by Nortel Networks in a prioritized order of importance. Nortel Networks addresses these proposals below.

1. Pairing Options:

A. 1710-1770 MHz/ 2110-2170 MHz:

B. 1710-1780 MHz/ 2110-2180 MHz :

Nortel Networks continues to support CITEL Draft Recommendation, Spectrum Arrangements for 3G and ITU-R Draft recommendation on Spectrum implementation, which advocates: "Maximize harmonization of IMT-2000 identified bands with existing 2G and 3G bands plan pairings for implementation of 3G services." The proposed new pairing, while identifying 120 MHz and 140 MHz of new frequencies for pairing options, does not maximize potential 3G use of existing worldwide 2G and 3G bands (*i.e*. DCS

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FCC 01-224, 66 FR 47618-01, *Further Notice of Proposed Rulemaking* (released August 20, 2001). The Commission subsequently granted an extension of the comment deadlines. *Order Extending Comment Period,* DA 01-2313, released October 4, 2001.

1800: 1710-1755 MHz and 1805-1850 MHz bands) to create totally common worldwide 3G spectrum, and thus falls short of this important goal.

Nortel supports continued dialog with U.S. Government elements and industry to work toward sharing spectrum with incumbents in the band 1755-1850 MHz, or relocation of those incumbents to other bands, thus maximizing harmonization of existing worldwide 2G and 3G band plans.

2. 1910-1930 MHz

A. 1910-1920 MHz:

Nortel recommends some changes to rules for this sub-band to allow operation of low power devices complying with international standards and that also meet the Power-Bandwidth limits currently defined in the Commission's Part 15 Rules. These changes would be in the public interest in extending the availability of voice and data services in harmony with existing and future global PCS mobile services. These new operations should be at power levels consistent with the existing rules (*i.e.* low power) to avoid interference to adjacent PCS operations.

During 1995-1997, CITEL PCC.III studied the possible use of high-power radio systems in the 1910-1930 MHz band and their impact on the operations in the adjacent licensed PCS bands. The results of these multi-year studies were issued in a report (PCC.III/doc.935/97).[2] These results indicate that significant interference to licensed PCS is likely if high power transmitters are deployed in 1910-1930 MHz band, and thus

[2] Guide on Results of the CITEL Study to quantify issues of compatibility between FWA and PCS on the 1850-1990 MHz band.

any changes to use of the 1910-1920 MHz band should retain the existing Unlicensed PCS (UPCS) transmission power limits.

Nortel Networks supports the FNPRM proposal to expand use of the band, so long as the current power limits are retained. The benefits from the expanded use of this band would be synergy and low cost of handsets and services between the United States and other global systems.

B. 1920-1930 MHz:

Nortel does not support changes in the rules of operation for this sub-band. Nortel Networks currently has over 100,000 users of UPCS devices operating in this sub-band. This equipment is operated in environments where reliability of service is paramount, but for which a licensed service is inappropriate. Far from being "underutilized" spectrum, in some areas the band has already reached saturation of traffic.

Many of the environments in which this equipment is operated include hospitals where reliable service with low power operation is necessary to preclude interference to sensitive medical instruments. Cell-phones are unacceptable in these environments due to the potential for interference. The continued operation, without disruptions, of these institutions, and the many thousands of other users, must be carefully considered before proposing any change in allocation of this sub-band.

The rules for operation in this band were established after an extensive period of industry consultation to achieve a workable sharing mechanism coupled with reliability of service. This sharing mechanism is unique in the unlicensed bands in its ability to allow independent systems to co-exist and assure a level of service availability. Any new

applications or services to be operated in these bands must comply with the existing rules in order to protect the quality of service the many thousands of current users have come to expect.

If the band 1910-1930 MHz, or any portion thereof, is re-allocated in support of new advanced wireless services, the current UPCS service users must be provided with appropriate replacement spectrum, in similar unlicensed bands. UPCS manufacturers, distributors, and users should also be afforded the same level of relocation funding as other displaced services. Nortel Networks is a founding, and continuing, member of UTAM, the designated spectrum clearing agency for this band, and has contributed significantly to the industry activity to transition the band from its former use into the successful UPCS service. In light of the significant investments by manufacturers and customers, it would be patently unfair to require the current users to relocate without adequate compensation.

3. 2150-2160 MHz:

Nortel Networks advocates the continued use of this frequency band for upstream communication channels to hub receiving facilities of the Multipoint Distribution Service (MDS). Nortel Networks supports the use of 2150-2160 MHz band for the continued rapid deployment of MDS across the country. To this end, Nortel Networks opposes the use of this band for other services. If the band 2150-2160 MHz, or any portion thereof, is re-allocated in support of new advanced wireless services, the current MDS service users must be provided with appropriate replacement spectrum. MDS manufacturers, distributors, and users should also be afforded the same level of relocation funding as

other displaced services. As recognized by the Commission, such relocation costs for the MDS/ITFS services would be very significant.[3]

4. 2390-2400 MHz:

Nortel Networks supports the concept that the 2390-2400 MHz band be used in conjunction with the 2385-2390 MHz band for possible relocation of some Government users from spectrum under consideration for advanced wireless services. Such relocation use must, of course, be compatible with aeronautical telemetry used in the adjacent 2360-2385 MHz band.

5. 1990-2025 MHz and 2165-2200 MHz:

Nortel Networks supports retention of 40 megahertz of spectrum for MSS in the 1990-2010 MHz and 2180-2200 MHz bands where MSS is allocated globally, and which WRC-2000 identified for the satellite component of IMT-2000. Additionally Nortel Networks would support the opportunity for other services, such as 3G advanced wireless services, to use the remaining spectrum in these bands.

## CONCLUSION

Nortel Networks supports the Commission in its effort to find spectrum for future 3G services. Nortel Networks continues to support activities that will lead to a

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[3] *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, ET Docket No. 00-258, FCC 01-256, *First Report and Order and Memorandum Opinion and Order* (released September 24, 2001).

harmonized spectrum allocation for global 3G services, particularly in the DCS 1800 band: 1710-1755 MHz and 1805-1850 MHz bands. Nortel Networks agrees that it would be in the public interest if the rules for the 1910-1920 MHz band were extended to accommodate standardized 3G systems under existing UPCS power limits. Nortel Networks also believes that it would be in the public interest if the 1920-1930 MHz band were maintained in its present form to continue to serve the many thousands of current users with critical quality of services needs.

Respectfully submitted,

/s/

Stephen L. Goodman
Halprin, Temple, Goodman & Maher
555 12th Street, N.W. Suite 950, North Tower
Washington, D.C. 20004
(202) 371-9100
*Attorneys for Nortel Networks Inc.*

*Of Counsel:*

John G. Lamb, Jr.
Nortel Networks Inc.
2100 Lakeside Boulevard
Richardson, Texas 75081-1599

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